

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Confirmation No.:5129

Alexander APOLONSKI et al.

Group Art Unit: 2828

Serial No.: 10/579,000

Examiner: Sean P. Hagan

Filed: August 18, 2006

For: **SHORT PULSE LASER DEVICE**

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**VIA EFS WEB**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

**DECLARATION UNDER 37 C.F.R. § 1.132**

I, FRANK WISE, declare as follows:

1. I am an author of the article "Characterization of a Kerr-lens mode-locked Ti:sapphire laser with positive group-velocity dispersion" published on October 1, 1993 in Optics Letters/Volume 18, No. 19, pages 1654-1656.

2. I am a physicist with substantial expertise and a number of published scientific articles in the optics and laser technology fields, and served as a full-time faculty member of the Department of Applied Physics of Cornell University.

3. My above-named article was submitted to the above-referenced Journal in 1993 at a time when chirped pulse oscillators (CPO) were unknown and there were no powerful pump lasers available.

4. My above-referenced article of 1993 discloses and concerns itself only with laser pulses of low energy, approximately in the 1 nJ range.

5. My above-referenced article of 1993 at page 1655, Fig. 1, line A, illustrates that the best results with respect to a large bandwidth and short laser pulses are obtained with a negative GDD.

6. At the low energy laser pulse levels discussed in my above-referenced article of 1993, bandwidth does not critically depend on the amount of positive GDD above 100 fs<sup>2</sup>.

7. My above-referenced article could not have served to teach operation of an oscillator in the high energy (above approximately 100 nJ) range.

8. High energy oscillation affects the operation of the laser arrangement since nonlinear optical effects may occur and the stability of the laser oscillation may be affected.

9. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

\_\_\_\_\_27 August 2010\_\_\_\_\_

Date



Frank Wise